Confirmation No.: 6068

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Nelson et al.	Examiner: Patrick D. Niland
Serial No.:	10/675,631	Group: Art Unit 1714
Filing Date:	September 30, 2003	Docket: T-6133 (538-56)
For:	STABLE COLLOIDAL SUSPENSIONS AND LUBRICATING OIL COMPOSITIONS CONTAINING SAME	Dated: July 16, 2008

MAIL STOP RCE
Commissioner for Patents
P.O. Box 1450
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DECLARATION OF KENNETH D. NELSON UNDER RULE 37 C.F.R. §1.132

Sir:

I, Kenneth D. Nelson, declare and say as follows:

1. I am a named co-inventor in the subject patent application. I hold the Bachelor of Science degree in Chemistry granted by Sonoma State University in 1998. I am now, and since 1997 have been, in the employ of Chevron Oronite Company LLC, assignee of the subject application, for whom I conduct experimental research in the capacity of a chemist. Specifically, I have worked on fuel and lubricating oil additive technology applications and their use.

2. In the Office Action mailed January 2, 2008, the Examiner has rejected Claims 1-62 under 35 U.S.C. §103(a) as being unpatentable over Price U.S. Patent No. 3,140,997 ("Price") in view of Valcho et al. U.S. Patent No. 4,601,837 ("Valcho et al."). It is my understanding that

Price discloses a process for preparing a colloidal molybdenum complex which involves extracting a molybdenum compound from an acidic aqueous solution with a ketone, dispersing the resulting ketone extract containing a molybdenum compound in an oil-soluble basic metal-containing dispersant and removing the ketone and water from the dispersion. It is my further understanding that Valcho et al. disclose a process for the manufacture of an overbased molybdenum-alkaline earth metal sulfonate in which polybutene succinic anhydride can be added conveniently to the reaction zone to increase the efficiency of molybdenum incorporation and improve product clarity.

3. In the Office Action mailed January 2, 2008, the Examiner asserts that "[i]t would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the instantly claimed combination of ingredients and amounts thereof and the methods of making the instantly claimed compositions because they are encompassed by the patentee." The Examiner further asserts that "[i]t would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the instantly claimed polyalkylene succinic anhydrides as the dispersants of Price because Valcho et al. shows such dispersants to improve the efficiency of molybdenum incorporation into similar dispersions and to improve product clarity at column 2, lines 31-37 and these improvements would have been expected in the compositions of Price."

4. I make this declaration for the purpose of presenting the results of experimental work carried out under my direction and control showing that the incorporation of a polyalkylene succinic anhydride as disclosed in Valcho et al. into the process disclosed in Price, does not

provide a "stable colloidal suspension comprising (a) a dispersed phase comprising a major amount of one or more dispersed hydrated polymeric compounds selected from ... polymolybdates ... and, (b) an oil phase comprising one or more dispersing agents selected from the group consisting of polyalkylene succinic anhydrides, non-nitrogen containing derivatives of a polyalkylene succinic anhydride and mixtures thereof and a diluent oil, wherein the stable colloidal suspension is substantially clear" as generally recited in independent amended Claims 1, 18 and 43. This experimental work and a discussion of the results thereof are presented in Paragraph 5.

5. By way of demonstrating that the combination of Price with Valcho et al. does not arrive at the presently claimed invention, Comparative Examples 1 and 2, which are exemplary of Example 2 of Price, were carried out as follows:

Comparative Example 1

To a 250ml round bottom flask was added ammonium molybdate tetrahydrate (10.0 g) and 6N hydrochloric acid (60.1 g) to form a mixture having a pH of less than 1. The mixture was heated at 80°C for one hour to form a hazy solution. The solution was decanted into a 250 ml separatory funnel and extracted with methyl isobutyl ketone (MIBK) (100 g).

To a 250ml round bottom flask equipped with heat mantle, stirrer, and temperature control, was added a polyisobutylene succinic anhydride (PIBSA) (10.1 g) having a number average molecular weight of 1100 and a SAP number of 120.5mg KOH/g, and a diluent oil (Exxon 150 Neutral Oil) (24.1 g). The PIBSA and diluent were stirred to prepare an oil solution.

While heating the oil solution to 80°C, the MIBK extract was added dropwise through an addition funnel. During the addition of the MIBK extract to the oil solution, the oil changed from an amber color to dark brown. The oil/MIBK extract mixture was heated to 115°C and then slowly to 140°C over a total of three hours while water and MIBK were removed. The remaining MIBK was removed en vacuo to yield a malodorous black solid (37.8 g). During the preparation, the 304 stainless steel thermocouple and viton seal adapter (used for temperature control) were damaged by corrosive action from the reagents.

Comparative Example 2

The procedure of Comparative Example 1 was repeated except that elemental sulfur (1.95 g; 1.0 mole ratio Mo basis) was added prior to complete removal of MIBK, and a Teflon coated thermocouple was used. A black solid was likewise obtained.

6. The experimental work presented in Paragraph 5 clearly show that using a dispersant disclosed in Valcho et al. in the process disclosed in Price does not provide the claimed stable colloidal suspension which is substantially clear. In contrast, the products obtained in Comparative Examples 1 and 2 were black solids.

7. In view of the experimental work presented in Paragraph 5 and discussed in the Amendment concurrently filed herein[1], it is my conclusion and opinion that the combination of Price and Valcho et al. does not arrive at the claimed invention.

[1] See Applicants' discussion in the Amendment regarding the significance of the experimental data presented in Comparative Examples 1 and 2 for the patentability of the amended claims over the combined disclosures of Price with Valcho et al.

8. I further declaration that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated: 16 July, 2008

Kenneth D. Nelson